

**Commonwealth of Kentucky
Environmental and Public Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382**

Proposed

**AIR QUALITY PERMIT
Issued under 401 KAR 52:020**

Permittee Name: Bluegrass Generation Company, LLC
Mailing Address: 1000 Louisiana, Suite 5800,
Houston, Texas 77002-5050

Source Name: Bluegrass Generation Company, LLC
Mailing Address: 3200 West Highway 146,
La Grange, Kentucky 40031

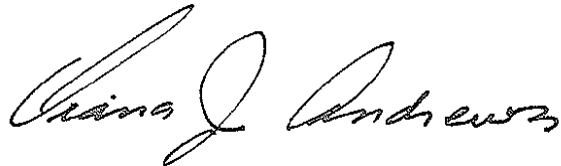
Source Location: 3095 Commerce Parkway,
La Grange, Kentucky 40031

Permit Number: V-05-080
Source A. I. #: 39541
Activity #: APE20050002
Review Type: Synthetic Minor, Title V Renewal
Source ID #: 21-185-00036
ORIS Code: 55164

Regional Office: Frankfort Region
643 Teton Trail, STE B
Frankfort, KY 40601-1758
(502) 564-3358

County: Oldham

Application
Complete Date: December 21, 2005
Issuance Date: May 23, 2006
Revision Date: NA
Expiration Date: May 23, 2011



**John S. Lyons, Director
Division for Air Quality**

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#	Permit type	Log or Activity#	Complete Date	Issuance Date	Summary of Action
V-00-052	Initial Issuance	G191	10/5/00	11/6/00	Initial construction permit F-99-028
Rev #1	Major Modification, Title V Initial Issue	51500	06/13/00	6/05/01	Added a third unit, initial Title V permit V-00-052
V-05-080	Title V and Acid Rain permit Renewal	APE20050002	12/23/05	05/23/06	No Changes, to issue Title V renewal permit V-05-080

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application the Kentucky Division for Air Quality hereby authorizes the operation of the equipment described herein in accordance with the terms and conditions of this permit. This permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any affected facilities without first submitting a complete application and receiving a permit for the planned activity from the permitting authority, except as provided in this permit or in 401 KAR 52:020, Title V Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Cabinet or any other federal, state, or local agency.

Emissions Unit: 01(GTG-1), 02(GTG-2), and 03(GTG-3)

– Natural Gas-Fired, Simple Cycle Combustion Turbine

[illegible]

2076 mmBtu/hr rated heat input capacity, 208 MW rated capacity output (each)

Siemens-Westinghouse 501FD gas-fired simple cycle combustion turbine

Control Equipment: Dry-Low NOx Burners & Water Injection on All Three Units

Hot Selective Catalytic Reduction (SCR) on Units 01 & 02

401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart GG, *Standards of Performance for Stationary Gas Turbines*, for emission units with a heat input at peak load equal to or greater than 10 MMBTU/hour for which construction commenced after October 3, 1977.

401 KAR 52:060, Acid Rain Permits, incorporating by reference Federal Acid Rain provisions
codified in 40 CFR Parts 72 to 78

401 KAR 51:160, NOx Requirements for Large Utility and Industrial Boilers, incorporating by reference 40 CFR 96

40 CFR Part 64, Compliance Assurance Monitoring (CAM) (for Nitrogen Oxides)

40 CFR Part 75, Continuous Emissions Monitoring (CEM)

1. Operating Limitations:

None

2. Emission Limitations: [See Section D for source-wide emission limitations]

a) Pursuant to 40 CFR 60.332, the nitrogen oxides (NO_x) emission level in the exhaust gas shall not exceed 111 part per million (ppm) by volume at 15 percent oxygen, on a dry basis, and based on a three-hour rolling average. The ppm level of NO_x (at ISO conditions) shall be demonstrated by stack test, and measured with use of a continuous emissions monitor (CEM).

b) Pursuant to 40 CFR 60.333, the permittee shall either not discharge any gases into the atmosphere which contain sulfur dioxide (SO₂) in excess of 0.015 percent by volume at 15 percent oxygen, on a dry basis, or not burn any fuel which contains sulfur in excess of 0.8 percent by weight.

c) Carbon monoxide (CO) emissions shall not exceed 50 ppm in any three-hour average except during start-up and shutdown periods. The start-up and shutdown emission calculation shall be based on emission rates determined from representative data derived from actual emissions testing. The CO emissions from the source during start-up and shutdown shall be included in the total emission cap of 245 tons per year as specified in Section D of this permit.

SECTION B -EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**3. Testing Requirements:**

a) Pursuant to 40 CFR 60.335 (a), in conducting performance tests required by 40 CFR 60.8, the owner or operator shall use either EPA Method 20; ASTM D6522-00 incorporated by reference 40 CFR 60.17; EPA Method 7E and either EPA Method 3 or 3A in Appendix A of Part 60 or other acceptable reference methods or procedures as specified in 40 CFR 60.335 so as to determine compliance with the nitrogen oxides standard.

b) At least once during the life of this permit, a performance test shall be conducted on EU 02 to determine representative CO startup and shutdown emission rates using appropriate EPA reference sampling methods, as practical, given the sampling times available at each load point. Test method modifications required to accommodate the brief time periods available at each load point must be detailed in the test protocol and test report submitted to the Division. More frequent testing may be requested by the Division for reasons including but not limited to increased source-wide operational capacity utilization.

4. Specific Monitoring Requirements:

a) Pursuant to 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart GG, and 40 CFR 75, the permittee shall install, calibrate, maintain, and operate a NO_x CEM. The NO_x CEM shall be used as the indicator of continuous compliance with the NO_x emission standard. Excluding the start-up and shutdown periods, if any 3-hour rolling average exceeds the NO_x emission limitation, the permittee shall, as appropriate, initiate an investigation of the cause of the exceedance and complete necessary control device/process/CEM repairs or take corrective action as soon as practicable.

b) The nitrogen oxides CEM shall be used in lieu of the water to fuel monitoring system for reporting excess emissions in accordance with 40 CFR 60.334(b). The CEM emission rates for NO_x shall be corrected to ISO conditions only for any stack test demonstrating compliance with the NO_x standard established in Subsection 2.

c) Additionally, a CEM system shall be installed, calibrated, maintained, and operated for measuring oxygen levels.

d) Pursuant to 40 CFR 75.11 Section (e)(1), the permittee shall determine Sulfur Dioxide (SO₂) emissions by using the heat input calculated using a certified flow monitoring system in conjunction with the default SO₂ emission rate for pipeline natural gas from Section 2.3.3 of Appendix D and equation F-23 in appendix F.

e) The owner or operator shall comply with all the monitoring requirements of 40CFR75.

f) Pursuant to 40 CFR 60.334(h), the permittee shall monitor the sulfur content of the fuel being fired in the turbine. The frequency of determination of these values shall be as specified in the following approved custom fuel monitoring schedule:

SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

4. Specific Monitoring Requirements (continued):

- 1) The sulfur content of the fuel shall be determined twice per annum. The monitoring shall be conducted during the first and third quarters of each calendar year.
 - 2) Pursuant to 40 CFR 60.334(h)(3), the permittee may elect not to monitor the total sulfur content of the gaseous fuel combusted in the turbine if the fuel meets the definition of natural gas.
 - 3) If there is a change in fuel supply, the owner or operator must notify the Division of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
- g) Pursuant to 401 KAR 52:020, Section 10, material incorporated by reference, to meet the monitoring requirement for carbon monoxide, the permittee shall use a CEM.
- h) The permittee shall install, calibrate, operate, test, and monitor all continuous monitoring systems and monitoring devices in accordance with 40 CFR 60.13 or 40 CFR 75. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device(s).
- i) Pursuant to 40 CFR 60.13(c), the owner or operator of an emissions unit shall conduct a performance evaluation of the continuous monitoring system during any performance test required under 40 CFR 60.8 or within 30 days thereafter, in accordance with the applicable performance specification in 40 CFR 60 Appendix B, for NO_x. Performance evaluations of CEM systems shall be conducted at other times as required.
- j) Pursuant to 401 KAR 59:005 Section 4 (9) (b), for affected facilities that are infrequently operated, an alternative monitoring procedure for CO monitors zero and span calibration checks has been approved by the Director. The permittee shall check the zero and span drift of the CO monitors at least once daily when operating, in accordance with and consistent with NO_x and O₂ monitor requirements under 40 CFR 75. The following provisions shall be adhered to while executing this alternative procedure:
- 1) Conditions for monitoring emissions data out-of-control periods as defined in 40 CFR 75.24 for CEMS shall apply to the CO monitors including but not limited to failed zero/span checks, and RATA tests. This out-of-control data shall not be used to calculate hourly emissions for the time period considered out-of-control until that time when the appropriate corrective measures specified in 40 CFR 75.24 are successfully completed and the data is back in-control.

SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**4. Specific Monitoring Requirements (continued):**

2) Data substitution rules shall apply to the CO emissions data for out-of-control periods, including monitoring downtime, and those substituted emission data values shall count toward the facility source-wide annual federally enforceable CO emissions limit. For the purpose of complying with this requirement, the data substitution rules for NO_x monitors listed in 40 CFR 75.33 shall be applied to the CO monitors.

k) Pursuant to 40 CFR 60.13(e), except during system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements by completing one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen (15) minute period.

l) Pursuant to 40 CFR 60.13(f), all continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the emissions unit are obtained. Additional procedures for location of continuous monitoring systems, as contained in the applicable Performance Specifications of 40 CFR 60 Appendix B, shall be used.

m) Pursuant to 40 CFR 60.13(h), the owner(s) or operator(s) shall reduce all data to one-hour averages for the continuous monitoring systems. The one-hour averages shall be computed from four or more data points equally spaced over each one-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g., ppm pollutant and percent oxygen). All excess emissions shall be converted into units of the applicable standard using the applicable conversion procedures specified in Subpart GG of 40 CFR 60. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used to specify the applicable emission standard.

n) CAM Requirements: The permittee shall use nitrogen oxides (NO_x) continuous emissions monitors (CEMs) as continuous compliance determination methods consistent with 40 CFR 64.4 (d) for NO_x parameters.

5. Specific Recordkeeping Requirements:

a) Pursuant to 401 KAR 59:005, Section 3, the owner or operator of the gas turbine shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems and devices; and all other information required by 401 KAR 59:005 recorded in a permanent form suitable for inspection.

SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

5. Specific Recordkeeping Requirements (continued):

b) Records, including those documenting the results of each compliance test and all other records and reports required by this permit, shall be maintained for five (5) years pursuant to 401 KAR 52:020.

c) Pursuant to 401 KAR 59:005, Section 3, the owner or operator of the unit shall maintain the records of the occurrence and duration of any start-up, shutdown, or malfunction in the operation of the emissions unit; any malfunction of the air pollution control equipment; or any period during which a continuous monitoring system or monitoring device is inoperative.

d) The permittee shall maintain a log of all sulfur content measurements. Records of sample analysis and fuel supply pertinent to the custom fuel sulfur monitoring schedule shall be retained for a period of five years, and shall be available for inspection by personnel of federal, state, and local air pollution control agencies.

e) The permittee shall maintain the records of operating parameters of the control equipment.

6. Specific Reporting Requirements:

a) Pursuant to 401 KAR 59:005, Section 3, minimum data requirements, which follow, shall be maintained and furnished in the format specified by the Division. Owners or operators of facilities required to install continuous monitoring systems shall submit a written report of excess emissions (as defined in applicable sections) to the Division for every calendar quarter. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter and shall include the following information:

1) The magnitude of the excess emissions computed in accordance with 401 KAR 59:005, Section 4(8), any conversion factors used, and the date and time of commencement and completion of each time period of excess emissions.

2) Specific identification of each period of excess emission that occurs during start-ups, shutdowns, and malfunctions of the emission unit including the nature and cause of any malfunction (if known), the corrective action taken or preventive measures adopted.

3) The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of the system repairs or adjustments.

4) When no excess emissions have occurred or the continuous monitoring system(s) has not been inoperative, repaired, or adjusted, such information shall be stated in the report.

SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)**6. Specific Reporting Requirements (continued):**

b) Pursuant to 40 CFR 60.334 (j)(1), for the reports regarding NO_x excess emissions, in lieu of those based on the water to fuel ratio monitoring, periods of excess emissions are defined as follows:

For NO_x: any three-hour period during which the average NO_x emission level as measured by the continuous monitoring system, rises above the emission limitation specified in Subsection 2, with which the permittee demonstrates compliance by the performance test required in 40 CFR 60.8.

c) Pursuant to 40 CFR 60.334(j)(1), each report of NO_x excess emission shall include the average NO_x emission level in lieu of water to fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and any graphs or figures developed.

d) Pursuant to 401 KAR 52:020, Section 10, material incorporated by reference, monitoring requirement with CEM for Nitrogen Oxides, excess emissions are defined by any three (3) hour period during which the average emissions (arithmetic average) exceed the applicable NO_x emission standard. These periods of excess emissions shall be reported quarterly.

e) Pursuant to 40 CFR 60.334(j)(2), excess emissions of SO₂ are defined by each unit operating hour included in the period beginning on the date and hour of any sample (or as otherwise required in the custom fuel sulfur monitoring plan) for which the sulfur content of the fuel being fired in the gas turbine(s) exceeds the limitations set forth in Subsection 2, *Emission Limitations*; and ending on the date and hour that a subsequent sample is taken that demonstrates compliance. These periods of excess emissions shall be reported quarterly.

f) CAM Reporting Requirements:

Pursuant to 40 C.F.R. §64.9(a) the permittee shall report the following information regarding its CAM Plan according to the general reporting requirements specified in Section F.5. of this permit:

- 1) Number of exceedances or excursions;
- 2) Duration of each exceedance or excursion;
- 3) Cause of each exceedance or excursion;
- 4) Corrective actions taken on each exceedance or excursion;
- 5) Number of monitoring equipment downtime incidents;
- 6) Duration of each monitoring equipment downtime incident;
- 7) Cause of each monitoring equipment downtime incident;
- 8) Description of actions taken to implement a quality improvement plan (if required by the Division); and upon completion of the quality improvement plan, documentation that the plan was completed and reduced the likelihood of similar excursions or exceedances.

SECTION B – EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

7. Specific Control Equipment Operating Conditions:

The permittee has the option to apply high temperature selective catalytic reduction (SCR) for NO_x control in its operation after initial demonstration of compliance with emission limitation set forth in Section B (2). The NO_x emissions limitations shall not exceed the permit limit when the SCR system is not in use. The total emission cap for the facility shall not exceed the limit established in Section D.

SECTION B - EMISSION POINTS, EMISSION UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS (CONTINUED)

Emissions Unit: 04 (HTR-1) Natural Gas Heater

Description:

Construction commenced: June 2001

5 mmBtu/hour Rated Heat input

Gas Tech Model #2133, natural gas heater

Applicable Regulations:

None

1. Operating Limitations:

None

2. Emission Limitations:

See Section D for source-wide emission limitations.

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall monitor the monthly fuel usage, the average monthly fuel heat content, and the monthly hours of operation.

5. Specific Recordkeeping Requirements:

The permittee shall maintain records of monthly fuel used, monthly average fuel heat content, and monthly hours of operation of the natural gas heater.

6. Specific Reporting Requirements:

None

7. Specific Control Equipment Operating Conditions:

None

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to 401 KAR 52:020, Section 6. While these activities are designated as insignificant the permittee must comply with the applicable regulation and some minimal level of periodic monitoring may be necessary.

	<u>Description</u>	<u>Generally Applicable Regulation</u>
1.	Emergency electric generator 250 kW, diesel-fired	See Section D
2.	Emergency fire water pump 310 hp, diesel-fired	See Section D
3.	(2) -30,000 Gallon Tanks 19% Aqueous ammonia solution	N/A
4.	(2)- 300 Gallon Diesel Fuel Storage Tanks	N/A
5.	3000 Gallon Oil/Water Separator Tank	N/A
6.	510 Gallon By-Product Condensate Tank	N/A
7.	Fugitive Emissions from natural gas fuel handling system	401 KAR 63:010

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

1. As required by Section 1b of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26; compliance with annual emissions and processing limitations contained in this permit, shall be based on emissions and processing rates for any twelve (12) consecutive months.
2. Emissions of NO_x and CO, measured by applicable reference methods, or an equivalent or alternative method specified in 40 C.F.R. Chapter I, or by a test method specified in the state implementation plan shall not exceed the respective limitations specified herein.
3. Gas Combustion Turbines, electric generator, fire water pump, and natural gas heater (emission units 01-04):
 - a) Pursuant to 401 KAR 60:005, incorporating by reference 40 CFR 60, Subpart GG, and to preclude 401 KAR 51:017, potential emissions of CO from the combustion turbines, electric generator, fire water pump, and natural gas heater (source-wide) –emission points 01 through 04– shall not exceed 245 tons per year, during any consecutive twelve (12) month period. The potential emissions of NO_x from the combustion turbines, electric generator, fire water pump, and natural gas heater (source-wide) –emission units 01 through 04 – shall not exceed 95 tons per year, during any consecutive twelve (12) month period. The permittee shall assure compliance with these limitations by use of CEM systems for the combustion turbines and by performing calculations for the natural gas heater using emission factors provided in the permit application.
 - b) Emissions from the combustion turbines shall be determined with CEMs. Emissions from the natural gas heater may be calculated with the following equations: NO_x emissions = (emission factor from manufacturer = 0.12 lb/mmBtu)*(heat input = 4.92 mmBtu/hr)*(hours operated per month)*(1 ton/2000lbs) CO emissions = (emission factor from manufacturer = 0.05 lb/mmBtu)*(heat input = 4.92 mmBtu/hr)*(hours operated per month)*(1 ton/2000lbs)
 - c) The permittee shall calculate and record the tons of NO_x and CO emissions emitted from the source on a monthly basis. Additionally, the permittee shall also calculate and record the tons of NO_x and CO emissions emitted from the source during any consecutive twelve (12) months.
 - d) Compliance with the annual NO_x emission limitation shall be determined by summing the emissions from the turbines, electric generator, fire water pump, and the gas heater for any consecutive twelve (12) months.
 - e) Compliance with the annual CO emission limitation shall be determined by summing the emissions from the turbines, electric generator, fire water pump, and the gas heater for any consecutive twelve (12) months.
 - f) Records of tons of NO_x and CO emissions emitted from the source in any consecutive twelve (12) month period shall be reported quarterly to the Division's Frankfort Regional Office.

SECTION E - SOURCE CONTROL EQUIPMENT REQUIREMENTS

Pursuant to 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS

1. Pursuant to Section 1b (IV) 1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26, when continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
 - a. Date, place as defined in this permit, and time of sampling or measurements;
 - b. Analyses performance dates;
 - c. Company or entity that performed analyses;
 - d. Analytical techniques or methods used;
 - e. Analyses results; and
 - f. Operating conditions during time of sampling or measurement.
2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality [Sections 1b(IV) 2 and 1a(8) of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. In accordance with the requirements of 401 KAR 52:020 Section 3(1)h the permittee shall allow authorized representatives of the Cabinet to perform the following during reasonable times:
 - a. Enter upon the premises to inspect any facility, equipment (including air pollution control equipment), practice, or operation;
 - b. To access and copy any records required by the permit;
 - c. Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements.

Reasonable times are defined as during all hours of operation, during normal office hours, or during an emergency.
4. No person shall obstruct, hamper, or interfere with any Cabinet employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.
5. Summary reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Regional Office listed on the front of this permit at least every six (6) months during the life of this permit, unless otherwise stated in this permit. For emission units that were still under construction or which had not commenced operation at the end of the 6-month period covered by the report and are subject to monitoring requirements in this permit, the report shall indicate that no monitoring was performed during the previous six months because the emission unit was not in operation [Section 1b (V) 1 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

6. The semi-annual reports are due by January 30th and July 30th of each year. Data from the continuous emission and opacity monitors shall be reported to the Technical Services Branch in accordance with the requirements of 401 KAR 59:005, General Provisions, Section 3(3). All reports shall be certified by a responsible official pursuant to 401 KAR 52:020 Section 23. All deviations from permit requirements shall be clearly identified in the reports.
7. In accordance with the provisions of 401 KAR 50:055, Section 1 the owner or operator shall notify the Regional Office listed on the front of this permit concerning startups, shutdowns, or malfunctions as follows:
 - a. When emissions during any planned shutdowns and ensuing startups will exceed the standards, notification shall be made no later than three (3) days before the planned shutdown, or immediately following the decision to shut down, if the shutdown is due to events which could not have been foreseen three (3) days before the shutdown.
 - b. When emissions due to malfunctions, unplanned shutdowns and ensuing startups are or may be in excess of the standards, notification shall be made as promptly as possible by telephone (or other electronic media) and shall be submitted in writing upon request.
8. The owner or operator shall report emission related exceedances from permit requirements including those attributed to upset conditions (other than emission exceedances covered by Section F.7. above) to the Regional Office listed on the front of this permit within *30 days*. Other deviations from permit requirements shall *be included in the semiannual report required by Section F.6* [Section 1b (V) 3, 4. of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. Pursuant to 401 KAR 52:020, Permits, Section 21, the permittee shall annually certify compliance with the terms and conditions contained in this permit, by completing and returning a Compliance Certification Form (DEP 7007CC) (or an alternative approved by the regional office) to the Regional Office listed on the front of this permit and the U.S. EPA in accordance with the following requirements:
 - a. Identification of the term or condition;
 - b. Compliance status of each term or condition of the permit;
 - c. Whether compliance was continuous or intermittent;
 - d. The method used for determining the compliance status for the source, currently and over the reporting period.
 - e. For an emissions unit that was still under construction or which has not commenced operation at the end of the 12-month period covered by the annual compliance certification, the permittee shall indicate that the unit is under construction and that compliance with any applicable requirements will be demonstrated within the timeframes specified in the permit.

SECTION F - MONITORING, RECORDKEEPING, AND REPORTING REQUIREMENTS (CONTINUED)

- f. The certification shall be postmarked by January 30th of each year. Annual compliance certifications should be mailed to the following addresses:

Division for Air Quality
Frankfort Regional Office
642 Teton Trail, Suite B
Frankfort, KY 40601

U.S. EPA Region 4
Air Enforcement Branch
Atlanta Federal Center
61 Forsyth St.
Atlanta, GA 30303-8960

Division for Air Quality
Central Files
803 Schenkel Lane
Frankfort, KY 40601

10. In accordance with 401 KAR 52:020, Section 22, the permittee shall provide the Division with all information necessary to determine its subject emissions within thirty (30) days of the date the KYEIS emission survey is mailed to the permittee.
11. Results of performance test(s) required by the permit shall be submitted to the Division by the source or its representative within forty-five days or sooner if required by an applicable standard, after the completion of the fieldwork.
12. Permittee must assure compliance with 401 KAR 63:020, *Potentially Hazardous Matter or toxic Substances*. Permittee must maintain a Division approved program for handling, controlling, and using ammonia and shall submit any changes to the program to the Division for approval at least thirty (30) days prior to implementation.

SECTION G - GENERAL PROVISIONS(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be a violation of 401 KAR 52:020 and of the Clean Air Act and is grounds for enforcement action including but not limited to termination, revocation and reissuance, revision or denial of a permit [Section 1a, 3 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020 Section 26].
2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition [Section 1a, 6 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
3. This permit may be revised, revoked, reopened and reissued, or terminated for cause in accordance with 401 KAR 52:020, Section 19. The permit will be reopened for cause and revised accordingly under the following circumstances:
 - a. If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to 401 KAR 52:020, Section 12;
 - b. The Cabinet or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements;
 - c. The Cabinet or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. If any additional applicable requirements of the Acid Rain Program become applicable to the source.

Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish information upon request of the Cabinet to determine if cause exists for modifying, revoking and reissuing, or terminating the permit; or to determine compliance with the conditions of this permit [Section 1a, 7,8 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
5. The permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such facts or corrected information to the permitting authority [401 KAR 52:020, Section 7(1)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

6. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit [Section 1a, 14 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
7. The permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance [Section 1a, 4 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
8. Except for requirements identified in this permit as state-origin requirements, all terms and conditions shall be enforceable by the United States Environmental Protection Agency and citizens of the United States [Section 1a, 15 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
9. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in 401 KAR 50:038, Section 3(6) [Section 1a, 10 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
10. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance [401 KAR 52:020, Section 11(3)(b)].
11. This permit does not convey property rights or exclusive privileges [Section 1a, 9 of the *Cabinet Provisions and Procedures for Issuing Title V Permits* incorporated by reference in 401 KAR 52:020, Section 26].
12. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Environmental and Public Protection or any other federal, state, or local agency.
13. Nothing in this permit shall alter or affect the authority of U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry [401 KAR 52:020, Section 11(3)(d)].
14. Nothing in this permit shall alter or affect the authority of U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders [401 KAR 52:020, Section 11(3)(a)].
15. This permit consolidates the authority of any previously issued PSD, NSR, or Synthetic Minor source preconstruction permit terms and conditions for various emission units and incorporates all requirements of those existing permits into one single permit for this source.

SECTION G - GENERAL PROVISIONS (CONTINUED)

16. Pursuant to 401 KAR 52:020, Section 11, a permit shield shall not protect the owner or operator from enforcement actions for violating an applicable requirement prior to or at the time of issuance. Compliance with the conditions of a permit shall be considered compliance with:
 - a. Applicable requirements that are included and specifically identified in the permit and
 - b. Non-applicable requirements expressly identified in this permit.
17. Pursuant to 401 KAR 50:045, Section 2, a source required to conduct a performance test shall submit a completed Compliance Test Protocol form, DEP form 6028, or a test protocol a source has developed for submission to other regulatory agencies, in a format approved by the cabinet, to the Division's Frankfort Central Office a minimum of sixty (60) days prior to the scheduled test date. Pursuant to 401 KAR 50:045, Section 7, the Division shall be notified of the actual test date at least Thirty (30) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

1. This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield, shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division [401 KAR 52:020, Section 12].
2. The authority to operate granted shall cease to apply if the source fails to submit additional information requested by the Division after the completeness determination has been made on any application, by whatever deadline the Division sets [401 KAR 52:020 Section 8(2)].

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emission trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the SIP or in applicable requirements and meet the relevant requirements of 401 KAR 52:020, Section 14(2).
2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority within ten (10) days following the transfer.

SECTION G - GENERAL PROVISIONS (CONTINUED)

(d) Construction, Start-Up, and Initial Compliance Demonstration Requirements

None

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.
2. The Source shall comply with all requirements and conditions of the Title IV Acid Rain Phase II permit application (including the Phase II NO_x compliance plan and averaging plan, if applicable) issued for the source. The source shall also comply with all requirements of any revised or future acid rain permit(s) issued to this source.
3. See Section J for the Acid Rain Permit.

(f) Emergency Provisions

1. Pursuant to 401 KAR 52:020 Section 24(1), an emergency shall constitute an affirmative defense to an action brought for the noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or relevant evidence that:
 - a. An emergency occurred and the permittee can identify the cause of the emergency;
 - b. The permitted facility was at the time being properly operated;
 - c. During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and
 - d. Pursuant to 401 KAR 52:020, 401 KAR 50:055, and KRS 224.01-400, the permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division when emission limitations were exceeded due to an emergency. The notice shall include a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
 - e. This requirement does not relieve the source of other local, state or federal notification requirements.
2. Emergency conditions listed in General Condition (f)1 above are in addition to any emergency or upset provision(s) contained in an applicable requirement [401 KAR 52:020, Section 24(3)].
3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof [401 KAR 52:020, Section 24(2)].

SECTION G - GENERAL PROVISIONS (CONTINUED)

(g) Risk Management Provisions

1. The permittee shall comply with all applicable requirements of 401 KAR Chapter 68, Chemical Accident Prevention, which incorporates by reference 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall comply with the Risk Management Program and submit a Risk Management Plan to:

RMP Reporting Center
P.O. Box 1515
Lanham-Seabrook, MD 20703-1515.

2. If requested, submit additional relevant information to the Division or the U.S. EPA.

(h) Ozone depleting substances

1. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:
 - a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.
 - b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.
 - c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.
 - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166
 - e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.
 - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.
2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, *Servicing of Motor Vehicle Air Conditioners*.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None

SECTION J - ACID RAIN

PHASE II ACID RAIN PERMIT

ACID RAIN PERMIT CONTENTS

- 1) Statement of Basis
- 2) SO₂ allowances allocated under this permit and NO_x requirements for each affected unit.
- 3) Comments, notes and justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.
- 4) The permit application submitted for this source. The owners and operators of the source must comply with the standard requirements and special provisions set forth in the Phase II Application.
- 5) Summary of Actions

1. Statement of Basis:

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100 and Titles IV and V of the Clean Air Act, the Kentucky Natural Resources and Environmental Protection Cabinet, Division for Air Quality issues this permit pursuant to 401 KAR 50:020, Permits, 401 KAR 50:060, Acid Rain Permit, and 40 CFR Part 76.

PERMIT (Conditions)

Plant Name: Bluegrass Generation Company, LLC
Affected Units: EU 01 (GTG – 1), EU 02 (GTG – 2), and EU 03 (GTG – 3)

2. SO₂ Allowance Allocations and NO_x Requirements for the affected unit:

SO ₂ Allowances	Year				
	2006	2007	2008	2009	2010
Tables 2, 3 or 4 of 40 CFR Part 73	0*	0*	0*	0*	0*

NO_x Requirements	
NO_x Limits	N/A**

* For newly constructed units there are no SO₂ allowance allocations per USEPA Acid Rain Program.

** This unit currently does not have applicable NO_x limits set by 40 CFR, part 76.

PERMIT (Conditions)

3. Comments, Notes, and Justifications:

The three (3) combustion turbines, emission units 01, 02 and 03, were constructed after the SO₂ allocation date; therefore these units will have no SO₂ allowances allocated by U.S. EPA and must obtain offsets.

The three (3) combustion turbines, emission units 01, 02 and 03, do not have applicable NO_x limits set by 40 CFR part 76.

4. Permit Application: Attached

The Phase II Permit Application is a part of this permit and the source must comply with the standard requirements and special provisions set forth in the Phase II Application.

5. Summary of Actions:

Previous Actions:

1. Draft Phase II Permit (# A-99-002 Draft (Revision 1)) was advertised for public comment March 29, 2001.
2. Final Phase II Permit (# V-00-052) was issued with SO₂ allowance allocation and NO_x emission standards on June 5, 2001.

Present Action:

1. Renewal Synthetic Minor/Title V with Phase II Acid Rain Permit (# V-05-080) is being advertised for public comments.

SECTION K – NO_x BUDGET

1) Statement of Basis

Statutory and Regulatory Authorities: In accordance with KRS 224.10-100, the Kentucky Environmental and Public Protection Cabinet issues this permit pursuant to 401 KAR 52:020 Title V permits, 401 KAR 51:160, NO_x requirements for large utility and industrial boilers, and 40 CFR 97, Subpart C.

2) NO_x Budget Permit Application, Form DEP 7007EE

The NO_x Budget Permit application for these electrical generating units was submitted to the Division and received on July 16, 2003. Requirements contained in that application are hereby incorporated into and made part of this NO_x Budget Permit. Pursuant to 401 KAR 52:020, Section 3, the source shall operate in compliance with those requirements.

3) Comments, notes, justifications regarding permit decisions and changes made to the permit application forms during the review process, and any additional requirements or conditions.

The Affected units are three (3) simple cycle combustion turbines used for peak electrical power production. Each unit has a nameplate capacity to generate greater than 25 megawatts of electricity, which is offered for sale. The units use natural gas exclusively as a fuel source.

4) Summary of Actions

The NO_x Budget Permit is being issued as part of the Title V renewal permit for this source. Public, affected state, and U.S. EPA review will follow procedures specified in 401 KAR 52:100.